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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AKERS, GEOFFREY R

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 12/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/664403

Applicant(s)

Cowell

Examiner

Athen, G

Group Art Unit

3624

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

☒ Responsive to communication(s) filed on 9/18/00

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

☒ Claim(s) 1-48 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-48 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

### Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-
- ☐ Other \_\_\_\_\_

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### DETAILED ACTION

1. Claims 1-48 have been examined.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-48 are rejected under 35 USC 103(a) as unpatentable over Frankel(US Pat. No: 6,070,151) in view of Lange(US Pat. No: 6,321,212) in view of Boudoukh(1996)("Pricing Mortgage-Backed Securities in a Multifactor Interest Rate Environment: A Multivariate Density Estimation Approach") in view of Chen(1995)("The Relevance of Interest Rate Processes in Pricing Mortgage-Backed Securities") and further in view of Cahill(5/99)("A Closer Look at Mortgage-Backed Securities").

4. As per claims 1-48 Frankel teaches a method for the creation of structured interest rate securities(Abstract)(Figs 2-8). Boudoukh teaches analyzing and pricing of mortgage backed securities(pages 4-12).Chen teaches term structure fitting and cash flows due to prepayments(p 323-328).Cahill teaches duration instabilities and negative convexities(p 2).Lange teaches hedging strategies and floating rate characteristics(Abstract)(Fig 9B) including market risk, credit risk, event risks in derivatives trading and pricing(col 3 lines 17-col 5 line 42)(col 6 line 48-col

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14 line 25) as well as a data processing system(Fig 1)(Fig 2).It would have been obvious to one skilled in the art at the time of the invention to combine Frankel in view of Lange to teach the above. The motivation to combine is to teach a method for statistical diversification of credit risk through the mutualization of multiple derivative counterparties and creating a market for derivatives trading as enunciated by Lange(col 13 lines 41-53).

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 11-15 are rejected under 35 USC 101 as lacking utility by not providing an output in a concrete useful or tangible form.

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7. Any questions concerning this communication should be addressed to the examiner of record, Dr. Geoffrey Akers, P.E., who can be reached between 6:30 AM and 5:00 PM Monday through Friday at 703-306-5844. If attempts to contact the examiner are unsuccessful, the examiner's superior, Mr. Vincent Millin, SPE, may be telephoned at (703)-308-1065.

The fax number for Formal or Official faxes and Draft or Informal faxes to Technology Center 3600 or this Art Unit is (703)-308-3687.

GRA

December 10, 2002